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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,976	08/22/2005	Roger Lee-Smith	920602-98736	7985
23644 7590 05/02/2008 BARNES & THORNBURG LLP P.O. BOX 2786 CHICAGO, IL 60690-2786				
EXAMINER				
LU, JIPING				
ART UNIT		PAPER NUMBER		
3749				
NOTIFICATION DATE		DELIVERY MODE		
05/02/2008		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patent-ch@btlaw.com

**Office Action Summary****Application No.**

10/526,976

**Applicant(s)**

LEE-SMITH, ROGER

**Examiner**

Jiping Lu

**Art Unit**

3749

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
- Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meeks et al. (U. S. Pat. 5,137,604) in view of Meeks et al. (U. S. Pat. 5,263,268).

Meeks et al. ('604) shows a vacuum drying method and apparatus comprising a drying chamber 114, control means 160 for controlling the pressure within the chamber, a pump 140 adapted to remove air gas and vapour from the chamber, a vent valve 144 which when open admits air to the chamber, a pressure control valve 126 which when open admits air directly to the pump inlet, and a pressure transducer means 146 adapted to monitor the chamber pressure and to provide a signal to the control means 160 which are arranged same as claimed. However, Meeks et al. ('604) do not show a non-return valve between the chamber and the pump inlet. The control means 160 controls the chamber pressure by opening and closing of the valves 144, 126 based on chamber pressure sensed by the pressure sensor 146. Meeks et al. ('268) teach a vacuum drying apparatus comprising a non-return valve 30 between the drying chamber 12 and the pump 16 to open and close according the absolute pressure differential between the respective inlet and outlet ends thereof. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the vacuum drying

apparatus of Meeks et al. ('604) to include a non-return valve between the drying chamber and the pump as taught by Meeks et al. ('268) in order to control the pump operation based on the pressure differential and therefore prolong pump service life. As for the limitations, "The control means is adapted to close .....while the chamber pressure remains substantially constant" in claim 4, last seven lines, they are viewed as functional or intended use limitations. As MPEP 2114 states, "[a] claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim". In this case, the limitations above do not add any structural limitations to the claim and the vacuum drying apparatus of Meeks et al. ('604) as modified by Meeks et al. ('268) discloses all the structural limitations. Additionally while not disclosed, the control means 160 of Meeks et al. ('604) is capable of being used for performing above claimed functions. With regard to the claimed type of the pressure transducer means in claims 6-7 and the non-return valve in claim 8, it would have been an obvious matter of design choice to design the vacuum drying apparatus of Meek et al. with any desired type of pressure transducer means and non-return valve in order to obtain a predictable and optimum result since applicant has not disclosed that the claimed pressure transducer means and flap valve solves any stated problem in a new or unexpected way or is for any particular purpose which is unobvious to one of ordinary skill in the art and it appears that the claimed feature does not distinguish the invention over similar features in the prior art since, the vacuum drying apparatus and method of Meek et al. will perform the invention as claimed by the applicant with the vacuum drying apparatus having any kind of the pressure transducer means and non-return valve. It is also well known in the art to use flap valve

Art Unit: 3749

as non-return valve and to use a pressure sensor which is proportional or given pressure for measuring pressure.

***Conclusion***

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jiping Lu whose telephone number is 571 272 4878. The examiner can normally be reached on Monday-Friday, 9:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, STEVEN B. MCALLISTER can be reached on 571 272-6785. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jiping Lu/  
Primary Examiner  
Art Unit 3749

J. L.